



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

COMPUTER APPLICATIONS TECHNOLOGY P2

(THEORY)

FEBRUARY/MARCH 2011

MEMORANDUM

MARKS: 150

This memorandum consists of 14 pages.

SECTION A**QUESTION 1: MATCHING ITEMS**

1.1	H	✓	(1)
1.2	G	✓	(1)
1.3	M	✓	(1)
1.4	F	✓	(1)
1.5	C	✓	(1)
1.6	N	✓	(1)
1.7	B	✓	(1)
1.8	P	✓	(1)
1.9	R	✓	(1)
1.10	E	✓	(1)
			Total: 10

QUESTION 2: MULTIPLE-CHOICE QUESTIONS

2.1	D	✓	(1)
2.2	D	✓	(1)
2.3	D	✓	(1)
2.4	B	✓	(1)
2.5	C	✓	(1)
2.6	A	✓	(1)
2.7	B	✓	(1)
2.8	C	✓	(1)
2.9	D	✓	(1)
2.10	C	✓	(1)
			Total : 10

TOTAL SECTION A: 20

SECTION B**QUESTION 3**

3.1		<ul style="list-style-type: none"> • CPU/processor ✓ • RAM/memory ✓ • Hard drive ✓ 			3
3.2		<ul style="list-style-type: none"> • Mobility/portability/easier to use for presentations • Can run on batteries for a period of time if power is off • Occupy less space than a desktop PC, etc. 	(Any 2) ✓✓		2
3.3		<ul style="list-style-type: none"> • Type of battery • Expected battery life • Weight • Whether a carry case is included, etc. <p><i>(Do not accept answers that are applicable to desktops as well or cost issues including insurance, etc.)</i></p>	(Any 2) ✓✓		2
3.4	3.4.1	<ul style="list-style-type: none"> • Size of monitor • Resolution/quality of image • Refresh rates • Viewing angles • Contrast ratios, etc. <p><i>(Do not accept answers relating to a choice between CRT and flat-screen monitors.)</i></p>	(Any 2) ✓✓	2	
	3.4.2	<ul style="list-style-type: none"> • Consume less power • Weighs less • Take up less space, etc. <p><i>(Accept better resolution/quality of image.)</i> <i>(Do not accept better viewing angles.)</i></p>	(Any 2) ✓✓	2	4
3.5	3.5.1	Ergonomics refers to the study/design of equipment ✓ so that it is comfortable/easy/safe for a user to use. ✓		2	

	3.5.2	<ul style="list-style-type: none"> • Soft touch keys • Keyboard/keys angles at a comfortable angle • Wrist/palm rest • Dedicated keys for frequently used functions • Curved keyboard, etc. <p>(Any 2) ✓✓</p>	2	
	3.5.3	Wireless/Bluetooth/Infrared ✓	1	
	3.5.4	<ul style="list-style-type: none"> • Greater chance of theft • Needs batteries to run • Interference/loss of signal, etc. <p>(Any 2) ✓✓</p>	2	7
3.6	3.6.1	Laser printer OR laser ✓ <i>(Also accept any answer relating to a networked photocopying type of printer.)</i>	1	
	3.6.2	Ink-jet printer OR ink-jet ✓ <i>(Also accept any answer relating to a 'photo-smart' type of printer or colour copier.)</i>	1	
	3.6.3	<ul style="list-style-type: none"> • Speed • Quality/resolution of printer • Paper sizes/media that can be used • Whether the printer can be connected to a network • Compatibility with operating system • Warranty/guarantees, etc. <p><i>(Do not accept answers relating to purchase cost.)</i> (Any 3) ✓✓✓</p>	3	5
3.7	3.7.1	Biometric (devices) ✓	1	
	3.7.2	So that only the authorised/recognised user can gain access to the data on the flash disk. ✓	1	
	3.7.3	<ul style="list-style-type: none"> • Voice (print) recognition • Facial recognition • Iris (eye) recognition <p>(Any 1) ✓</p>	1	3
		Total		26

QUESTION 4

4.1	4.1.1	<ul style="list-style-type: none"> • Provides the user with an interface to work with computer/hardware • Responsible for allocating hardware resources • Coordinates all activities of the system • Provides basic security functions • Provides access to storage • Controls boot-up process • Manages the programs running in memory, etc. <p><i>(Accept relevant examples that illustrate any of the points listed.)</i></p> <p style="text-align: right;">(Any 3) ✓✓✓</p>	3	
	4.1.2	<ul style="list-style-type: none"> • Do not need/want the additional features provided with Windows 7 • Different interface to contend with/may need training/upgrading of skills • Computer may run slower than with original operating system • Problems with sourcing compatible drivers for hardware • Insufficient RAM available • Insufficient hard drive space • Processor not sufficient for new package, etc. <p><i>(Do not accept any answer referring to software issues.)</i></p> <p style="text-align: right;">(Any 3) ✓✓✓</p>	3	
	4.1.3	<p>Open source software allows access (to the source code) to make changes to the program itself. ✓</p> <p><i>(Do not accept answers relating to licensing or cost.)</i></p>	1	
	4.1.4	Linux ✓	1	8
4.2	4.2.1	<ul style="list-style-type: none"> • User does not have to keep checking that they have all the latest updates. • 'Inexperienced' users do not have to make decisions as to which updates to install. • Does not require any time/effort on the part of the user, etc. <p style="text-align: right;">(Any 1) ✓</p>	1	
	4.2.2	Switch off the option to automatically download and install updates. ✓	1	

	4.2.3	<ul style="list-style-type: none"> • Fix security loopholes (e.g. against viruses) • Provide updated drivers • Fix errors/bugs in the (code of the) operating system • Provide new features in the operating system • Updates can make the system run more smoothly, etc. <p><i>(Do not accept vague answers such as 'keeps the system updated'.)</i></p> <p>(Any 2) ✓✓</p>	2	
	4.2.4	<ul style="list-style-type: none"> • Online updates may use a lot of cap/bandwidth/download time • While in progress it can/will slow down the computer • May not want features that come with updates • Users may want to choose which updates they want installed • A stable system can sometimes become unstable, etc. <p>(Any 2) ✓✓</p>	2	6
4.3	4.3.1	<p>A virus is software/code ✓ written to impact negatively on a computer system/exploit security weaknesses ✓ and is designed to spread itself. ✓</p> <p><i>(Do not accept answers such as it being a 'bug'.)</i></p>	3	
	4.3.2	<ul style="list-style-type: none"> • Install antivirus software • Keep the antivirus software updated • Disable 'auto run' features for flash drives • Make sure operating system is updated regularly/automatically • Scan all portable storage media before using them • Avoid downloading/using pirated software • Scan attachments when/before opening them • Do not open attachments from unknown/suspicious sources • Do not interact/click on pop-ups that appear on the screen, etc. <p>(Any 3) ✓✓✓</p>	3	
	4.3.3	<p>No ✓ viruses can install themselves on systems via any portable storage media (flash disks, etc).✓</p>	2	8

4.4	<ul style="list-style-type: none"> • Use an uninstaller program (often comes with the program) • Use the operating system to uninstall the program (e.g. Add/Remove programs in Control Panel in Windows) <p style="text-align: right;">(Any 1) ✓</p>		1
4.5	<ul style="list-style-type: none"> • Save in an earlier/lower version • Open on a PC that has the correct software installed (e.g. Office 2007/10) • Download and install a patch • Try opening in another program e.g. Open Office, etc. <p style="text-align: right;">(Any 2) ✓ ✓</p>		2
4.6	Professional editions have more features than home editions. ✓		1
	Total		26

QUESTION 5

5.1	5.1.1	<ul style="list-style-type: none"> • A LAN stretches over a limited (geographical) distance whereas a WAN (Wide Area Network) extends over a vast distance. ✓ • Any suitable example of a WAN (e.g. Internet, nation-wide banking network, etc.) ✓ 	2	
	5.1.2	Network card/network interface card (NIC) ✓	1	
	5.1.3	<ul style="list-style-type: none"> • Usernames/passwords • Setting access/group rights for users • Placing user groups on different segments of the network, etc. <p><i>(Do not accept answers relating to physical access to the computers.)</i></p> <p>(Any 1) ✓</p>	1	
	5.1.4	<ul style="list-style-type: none"> • More storage places available on the network/additional (network) drives available <i>(Accept specific drive letters e.g. X, OR non-local drives e.g. U, T, Z drives, etc.)</i> • Access to hardware not connected to the PC (e.g. shared printer etc) • Can communicate with other users on the networks, etc. <p>(Any 2) ✓✓</p>	2	6
5.2	5.2.1	<ul style="list-style-type: none"> • Speed of connection • Cap limit • Whether the service is available in your area • Reputation of ISP, etc. <p>(Any 2) ✓✓</p>	2	
	5.2.2	<ul style="list-style-type: none"> • Dial-up connections are charged for connection time (telephone costs) ✓ • Broadband connection costs are based on the volume of data transferred over a period ✓ 	2	4
5.3	5.3.1	Used to host/view/display videos ✓	1	
	5.3.2	<ul style="list-style-type: none"> • Use a program that will block specific types of sites <i>(Accept brand names such as iCop, Net Nanny or NetOp, etc.)</i> • Use proxy server/firewall to block the sites <i>(Accept only proxy or only server.)</i> <p>(Any 1) ✓</p>	1	

	5.3.3	High bandwidth required/reduces cap quickly ✓ <i>(Do not accept answers relating to cost.)</i>	1	
	5.3.4	<ul style="list-style-type: none"> • Learners wasting time • Learners are potentially exposed to undesirable material • Learners can post potentially undesirable material • Could be considered a waste of bandwidth • Potential exposure of learners to online predators/paedophiles • Parents might not approve, etc. <i>(Do not accept any answer relating cap/bandwidth usage if used in the previous answer.)</i> (Any 2) ✓✓	2	
	5.3.5	<ul style="list-style-type: none"> • Download video material elsewhere ✓ • Post video in a shared drive/in learners' drives/ demonstrate with a projector, etc. ✓ 	2	7
5.4	5.4.1	<ul style="list-style-type: none"> • Previous/older copy of the web page has been stored/cached locally on the computer ✓ • Need to refresh/download web page ✓ <i>(Accept press F5 for refreshing of web page.)</i>	2	
	5.4.2	<ul style="list-style-type: none"> • RSS allows updated/new data from a variety of sites/sources to be automatically downloaded/sent to the user ✓ • Saves time and trouble as new content is automatically downloaded. ✓ <i>(Do not accept Really Simple Syndication as an answer on its own.)</i>	2	4
5.5	5.5.1	URL refers to the address of a website/page/resource ✓ <i>(Do not accept Uniform Resource Locator as an answer on its own.)</i>	1	
	5.5.2	<ul style="list-style-type: none"> • Look through (browsing) history • Bookmarks • Favourites (Any 2) ✓✓	2	
	5.5.3	A search engine is a program/website that searches a database of registered sites/web pages ✓ for matches to text/words that are entered/input by the user. ✓	2	5
		Total		26

QUESTION 6

6.1	6.1.1	https indicates that the website is 'secure'/makes use of encryption to protect online transactions. ✓ <i>(Do not accept the expansion of the acronym as an answer.)</i>	1	
	6.1.2	<ul style="list-style-type: none"> • Banks do not contact customers via e-mail to ask them to log onto their website or to update their account • Spelling errors in the e-mail • Looks like a typical phishing scheme, etc. <p style="text-align: right;">(Any 2) ✓✓</p>	2	
	6.1.3	<ul style="list-style-type: none"> • Contact the bank • Check the actual web address by looking at the properties of the hyperlink • Check online to see if similar schemes are doing the rounds, etc. <p style="text-align: right;">(Any 2) ✓✓</p>	2	
	6.1.4	Phishing ✓	1	
	6.1.5	<ul style="list-style-type: none"> • Do not click on hyperlinks to gain access to banking websites • Type the name of the bank's URL in the web browser yourself • Make sure you have security software installed on your computer • Make sure the security software/system on your computer is frequently updated • Use good password practice • Be careful where and how you give out personal information • Read up on the latest trends in phishing, etc. <p style="text-align: right;">(Any 2) ✓✓</p>	2	8
6.2	6.2.1	<ul style="list-style-type: none"> • Can be done at any time (24/7/365) • Do not have to physically go to shop • Able to compare prices easily • Potentially lower prices • Can read reviews by other readers/see recommendations • Purchases delivered, etc. <p style="text-align: right;">(Any 2) ✓✓</p>	2	

	6.2.2	<ul style="list-style-type: none"> • Lower overhead costs (staffing, building, etc.) • Can potentially supply books at lower costs than conventional shops • Do not have to carry large stocks • Wider markets (Internet presence) • Easy to market • Can detect trends more easily • Can match customer's preferences with those of others • Whole system can be computerised/automated • Less bad debts (only credit cards are accepted) <p>(Any 2) ✓✓</p>	2	
	6.2.3	<ul style="list-style-type: none"> • Notification of transactions by SMS • Security features such as passwords/PIN numbers • On-screen key pad to enter PIN numbers (bypass keyboard loggers) • 'One-time' passwords used per session and sent to customer's cell phone • Use of secure protocols (https/SSL) • Automatic logging off of customer after period of time in a session, etc. <p>(Any 2) ✓✓</p>	2	6
6.3	6.3.1	<p>Spam is unsolicited e-mails advertising products, etc. ✓</p> <p><i>(Also accept electronic junk mail as an answer.)</i></p>	1	
	6.3.2	<ul style="list-style-type: none"> • Avoid giving out e-mail address where possible • Make use of different e-mail addresses • Install anti-spam software • Use the anti-spam filters of your e-mail program • Make use of an ISP that filters for spam, etc. <p>(Any 2) ✓✓</p>	2	3
6.4	6.4.1	<ul style="list-style-type: none"> • You do not need the program in which the document was created to open it • The program needed to read these documents (Adobe Reader) is free • Users cannot (easily) make changes to the document • Adobe Reader is widely available, etc. <p>(Any 2) ✓✓</p>	2	

	6.4.2	<ul style="list-style-type: none"> • Each document (job) waiting to be printed is placed in a printer queue ✓ (per printer) on disk • This will show if the printing is still waiting in the queue, or it will display an error message ✓ 	2	
	6.4.3	<ul style="list-style-type: none"> • Check that the printer has paper • Check that the printer is online • Check for paper jams • Check if there is paper in the correct feeder tray • Check that there is toner/ink in the cartridges, etc. <p>(Any 2) ✓✓</p>	2	6
6.5		<ul style="list-style-type: none"> • Cross-reference the information with other sources • Check that the publication date is recent • Check if the information comes from a credible source • Look critically at the spelling and grammar for credibility • Check to see that the document is not biased or opinion-based • Check the credentials of the author(s) • Check the links given to other sources, etc. <p>(Any 3) ✓✓✓</p>		3
		Total		26

QUESTION 7

7.1	<ul style="list-style-type: none"> The language is set as 'US/American' English ✓ Change language setting to 'UK' or 'South African English' ✓ 			2
7.2	<ul style="list-style-type: none"> Program is in overtype mode ✓ where existing characters are replaced with newly typed characters Change to 'insert' mode ✓ <p><i>(Also accept descriptions on how to get out of overtype mode e.g. double-click on the OVR on the status bar.)</i></p>			2
7.3	<ul style="list-style-type: none"> Bookmarks Hyperlinks Use Find/Replace option if text is known <p style="text-align: right;">(Any 2) ✓✓</p>			2
7.4	<p>Use the 'match case' option ✓ so that only occurrences of the word which match the specified capitalisation are replaced</p> <p><i>(Also accept using the Find and Replace function to replace each word separately.)</i></p>			1
7.5	<ul style="list-style-type: none"> The captions are always consistently positioned The format of the captions is always consistent Captions will update when any relevant change is made in the document Will show in any table of figures(images)/graphs/tables Captions are automatically numbered consecutively <p style="text-align: right;">(Any 2) ✓✓</p>			2
7.6	7.6.1	SUM ✓	1	
	7.6.2	COUNTIF ✓	1	
	7.6.3	COUNT ✓	1	
	7.6.4	LEFT or MID ✓	1	
	7.6.5	MODE ✓	1	5
7.7	<ul style="list-style-type: none"> Change page orientation from portrait to landscape (or vice versa) Choose the 'fit to one page' print option Reduce the sizes of the margins Use auto-width option/make columns narrower Try and wrap headings where possible <p style="text-align: right;">(Any 2) ✓✓</p>			2

7.8	7.8.1	A wizard is a step by step ✓ guide/program that helps you create your own document/form/report, etc. ✓ (Do not accept 'program' as an answer on its own.)	2	
	7.8.2	<ul style="list-style-type: none"> • Can add instructions on how to enter records (which format to be used, etc.) • Can create form to mirror the hardcopy form to facilitate data capturing • Can restrict which field the user can/has to enter data into • Easier to work with as only one record at a time is shown • Can add controls (drop down lists, etc. to facilitate data capturing, etc.) <p style="text-align: right;">(Any 2) ✓✓</p>	2	
	7.8.3	A numerical field will discard any leading zeroes ✓ (whereas a text field will retain the leading zero)	1	
	7.8.4	<ul style="list-style-type: none"> • No records will be displayed ✓ • No value can be both greater than 10 and less than or equal to 1 at the same time ✓ 	2	7
7.9	7.9.1	Will display the total number ✓ of records listed in the report ✓	2	
	7.9.2	Will display the number of records per group ✓ (of the field that the records are grouped on)	1	3
		Total		26

TOTAL SECTION B: 130
GRAND TOTAL: 150